

**WHAT IS CLAIMED IS:**

1. A horticultural growing medium comprising:  
a flexible diphenylmethane diisocyanate foam material without filler material having a cation exchange capacity ranging from about 1.0 to about 1.5,  
said horticultural growing medium being capable of supporting plant growth.
2. The horticultural growing medium of claim 1, wherein said cation exchange capacity is about 1.25.
3. The horticultural growing medium of claim 1, wherein said diphenylmethane diisocyanate foam material is taken from a group consisting of polymeric diphenylmethane diisocyanate, crude diphenylmethane diisocyanate, 4,4'-, 2,4'-, 2,2'-diphenylmethane diisocyanate.
4. The horticultural growing medium of claim 1, wherein said diphenylmethane diisocyanate foam material is polymeric diphenylmethane diisocyanate.
5. The horticultural growing medium of claim 1, wherein said diphenylmethane diisocyanate foam material is one or a mixture of 2,2'-, 2,4'- and 4,4'-diphenylmethane diisocyanate (MDI), polymeric MDI, crude MDI, namely, products of crude diaminodiphenyl methane or a mixture of the same
6. The horticultural growing medium of claim 1, wherein said foam material has a neutral pH ranging from 6.8 to 7.8.
7. The horticultural growing medium of claim 1, wherein said foam material is highly porous and maintains a 60 to 40 air to water ratio.
8. The horticultural growing medium of claim 1, wherein said foam material has at least 50% of its pores by foam volume ranging in size between 10 and 200 microns.

9. The horticultural growing medium of claim 1, wherein said foam material has about 50% of its pores by foam volume ranging in size from 40 to about 90 microns.

10. The horticultural growing medium of claim 1, wherein said foam material has pores ranging from 20% to about 25% by foam volume which range in size between about 0.2 microns to about 10 microns.

11. The horticultural growing medium of claim 1, wherein said foam material has pores ranging from about 25% to about 35% by foam volume which range in size between about 300 microns to about 800 microns.

12. The horticultural growing medium of claim 1, wherein said foam material is substantially sterile.

13. The horticultural growing medium of claim 1, wherein said foam material has pores of about 30% by foam volume which range in size between about 300 microns to about 800 microns.

14. The horticultural growing medium of claim 1 wherein said foam material has a total porosity ranging from 85% to 95%.

15. The horticultural growing medium of claim 1 wherein said foam material has a total porosity of about 90% to 92%.

16. A horticultural growing medium comprising:  
a sterile foam material made of diphenylmethane diisocyanate having at least 50% of its pores by foam volume ranging in size between 10 and 200 microns with a cation exchange capacity ranging from about 1.0 to about 1.5, said foam material having a total porosity ranging from about 85% to about 95%;

said horticultural growing medium being capable of supporting plant growth.

17. The horticultural growing medium of claim 16, wherein said foam material is at least one diphenylmethane diisocyanate taken from a group consisting of crude, polymeric, 4,4'-, 2,4'- and 2,2'-diphenylmethane diisocyanate.

18. The horticultural growing medium of claim 16, wherein said foam material is polymeric diphenylmethane diisocyanate.

19. The horticultural growing medium of claim 16, wherein said foam material is one or more of 2,2'-, 2,4'- and 4,4'-diphenylmethane diisocyanate (MDI), crude MDI, polymeric MDI or a mixture of the same.

20. A horticultural growing medium comprising:

a substantially sterile foam material made of diphenylmethane diisocyanate taken from a group consisting of one or more of 2,2'-, 2,4'- and 4,4'-diphenylmethane diisocyanate (MDI), crude MDI, products of crude diaminodiphenyl methane including polymeric MDI or a mixture of the same, having at least 50 of its pores ranging in size between 10 and 200 microns with a cation exchange capacity ranging from about 1.0 to about 1.5, with a total porosity ranging from about 90% to about 92%,

said horticultural growing medium being capable of supporting plant growth.

21. A horticultural growing medium as claimed in claim 20 wherein said foam material is a sheet with seeds secured thereto.

22. A horticultural growing medium as claimed in claim 20 wherein said foam material is a shaped block with an aperture cut therein.

23. A horticultural growing medium as claimed in claim 20 wherein said cation exchange capacity is about 1.0.

24. A horticultural growing medium as claimed in claim 20 wherein said diphenylmethane diisocyanate is polymeric.